



# Darboux Transformations and Random Point Processes

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Résumé en anglais	In this paper, we describe a general method to derive formulas relating the gap probabilities of some classical determinantal random point processes (Airy, Pearcey, and Hermite) with the gap probability of the same processes with "wanderers", "inliers", and "outliers". In this way, we generalize the Painlevé-like formula found by Baik for the Baik-Ben Arous-Péché distribution to many different cases, both in the one and multi-time setting. The method is not ad hoc and relies upon the notion of Schlesinger transformations for Riemann-Hilbert problems.
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## Liens

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=18110](http://okina.univ-angers.fr/publications?f[author]=18110)
- [2] <http://okina.univ-angers.fr/mattia.cafasso/publications>
- [3] <http://okina.univ-angers.fr/publications/ua12558>
- [4] <http://dx.doi.org/10.1093/imrn/rnu122>
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